

ABSTRACT OF THE DISCLOSURE

An electric motor that includes a housing, a rotatable axle, a first field armature, which is disposed substantially around the axle and secured to the axle, and which includes a plurality of first field magnets spaced around the first field armature, a second field armature, which is disposed substantially around the first field armature and secured to the axle, and which includes a plurality of second field magnets spaced around the second field armature, an electromagnetic member, which is disposed between the first field armature and secured to the housing. The electromagnetic member includes a plurality of electromagnets spaced around the electromagnetic member, wherein each electromagnet includes a winding that is electrically coupled to an appropriate current source, wherein each winding is capable of being sequentially electrically coupled to a current source, such that an appropriate current may be sequentially provided to each winding.